

IN THE CLAIMS:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)

7. (Currently Amended) A method for producing a polyolefinic double layer transpiring film which allows vapour and air to pass therethrough while being impermeable to liquids, said method comprising the steps of:

bubble extruding a mix of a filler, which filler imparts transpirability upon stretching, and a polyolefin to form a tube;  
flattening the tube to obtain a double layer flat film having two layers;  
heating the double layer flat film to its softening temperature;  
compressing the heated double layer flat film to unite the layers of the double layer film and thereby form a double layer laminate;

then cooling the double layer flat film having united layers to a temperature between 8-30°C; and then

transversely and longitudinally stretching the cooled double layer flat film to impart transpirability to the double layer flat film.

Serial No. 10/089,313

8. (Previously Presented) A method according to claim 7, wherein said heating of the double layer flat film to its softening temperature comprises first heating by conduction and then heating by irradiation.
9. (Previously Presented) A method according to claim 7 wherein the filler is 30% to 70% by weight of the mix.
10. (Previously Presented) A method according to claim 7 wherein said polyolefin is selected from the group consisting of polyethylene and copolymers of ethylene and an alpha-olefin.
11. (Previously Presented) A method according to claim 7 wherein said polyolefin is linear low density polyethylene or medium density polyethylene.
12. (Previously Presented) A method according to claim 7 wherein said filler has dimensions between 0.6 and 6  $\mu\text{m}$  and has surfaces which are hydrophobic.
13. (Previously Presented) A method according to claim 12 wherein said filler is selected from the group consisting of  $\text{CaCO}_3$ , clay, kaolin, zeolites, Zn, Al,  $\text{CaSO}_4$ ,  $\text{BaSO}_4$ , MgO,  $\text{Mg(OH)}_2$  and  $\text{TiO}_2$ .

Serial No. 10/089,313

14. (Previously Presented) A method according to claim 9 wherein said filler has dimensions between 0.6 and 6  $\mu\text{m}$  and has surfaces which are hydrophobic.

15. (Previously Presented) A method according to claim 14 wherein said filler is selected from the group consisting of  $\text{CaCO}_3$ , clay, kaolin, zeolites, Zn, Al,  $\text{CaSO}_4$ ,  $\text{BaSO}_4$ , MgO,  $\text{Mg(OH)}_2$  and  $\text{TiO}_2$ .

16. (Previously Presented) A method according to claim 10 wherein said filler has dimensions between 0.6 and 6  $\mu\text{m}$  and has surfaces which are hydrophobic.

17. (Previously Presented) A method according to claim 16 wherein said filler is selected from the group consisting of  $\text{CaCO}_3$ , clay, kaolin, zeolites, Zn, Al,  $\text{CaSO}_4$ ,  $\text{BaSO}_4$ , MgO,  $\text{Mg(OH)}_2$  and  $\text{TiO}_2$ .

18. (Previously Presented) A method according to claim 11 wherein said filler has dimensions between 0.6 and 6  $\mu\text{m}$  and has surfaces which are hydrophobic.

19. (Previously Presented) A method according to claim 18 wherein said filler is selected from the group consisting of  $\text{CaCO}_3$ , clay, kaolin, zeolites, Zn, Al,  $\text{CaSO}_4$ ,  $\text{BaSO}_4$ , MgO,  $\text{Mg(OH)}_2$  and  $\text{TiO}_2$ .

Serial No. 10/089,313

20. (Currently Amended) An apparatus for producing a stretched double layer polyolefinic transpiring film which allows vapour and air to pass therethrough while being impermeable to liquids, said apparatus comprising, arranged successively in series;

a bubble extruder for extruding a tube;

a first calender for flattening the extruded tube to obtain a double layer flat film;

heating means for heating the double layer flat film to its softening temperature, said heating means comprising, arranged in series, conductive heating means for heating the double layer flat film by conduction and radiant heating means for heating the double layer flat film by irradiation;

a second calender for compressing the heated double layer flat film to unite the layers of the double layer flat film;

cooling means for quickly cooling the double layer flat film with united layers to a temperature between 8-30°C; and

stretching means for transversely and longitudinally stretching the double layer flat film to impart transpirability to the double layer flat film.

21. (New) An apparatus according to claim 20 wherein said cooling means is a calender roller.

22. (New) A method according to claim 7 wherein said cooling is by contacting the double layer flat film having united layers with a calender roller.

Serial No. 10/089,313

23. (New) A method according to claim 22 wherein the calender roller is at a temperature between 8°C and 30°C.